



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
200 **STOVALL** STREET
ALEXANDRIA, VA 22332-2300

Ser 1722/40K4
12 Jun 1997

From: Commander Naval Facilities Engineering Command

Subj: MATERIAL HANDLING EQUIPMENT (MHE) OPERATOR RESTRAINT DEVICES

- Encl: (1) OSHA Memorandum of October 9, 1996, Subject: Enforcement of the Use of Seat Belts on Powered industrial Trucks in General Industry
(2) OSHA interpretation of March 7, 1996, Subject: Use of Seat Belts on Powered Industrial Trucks
(3) Excerpt form ASME B56.1-1993, Paragraph 7.39 Operator Restraint Systems

1. It has been brought to our attention that OSHA has established a policy regarding the use of operator restraint devices (e.g. seat belts) on industrial lift trucks equipped with sit-down operator position. Enclosures (1) and (2) reflect OSHA's position. Enclosure (3) is the pertinent ASME standard referred to by OSHA and is provided for your information.

2. Activities should determine the availability of retrofit kits for MHE not already equipped with restraint devices. Contracting Officers should ensure that MHE used by NAVFAC contractors meets the requirements outlined in enclosures (1) through (3).

3. POC for additional information or questions is Shelia Davidson, (757) 444-5193, or DSN 564-5 193.


DOUGLAS L. CRADDOCK
By direction

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U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20310

Reply to the Attention of:

OCT 9 1996

OCT 17 3 12 PM '96

MEMORANDUM FOR:

REGIONAL ADMINISTRATORS

FROM:

Richard Fanger
JOHN B. MILES, JR., DIRECTOR
DIRECTORATE OF COMPLIANCE PROGRAMS

SUBJECT:

Enforcement of the Use of Seat Belts on Powered Industrial Trucks
in General Industry

It has come to my attention that clarification is needed to ensure that a uniform approach is taken by all OSHA offices with respect to the enforcement of the use of seat belts on powered industrial trucks in general industry.

American National Standards Institute (ANSI) B56.1-1969 Safety Standard for Powered Industrial Trucks, was adopted by OSHA under the procedures described in Section 6(a) of the Occupational Safety and Health Act (OSH Act). ANSI B56.1-1969 does not have provisions for the use of seat belts. Therefore, 29 CFR 1910.178 does not contain requirements for the use of seat belts. However, Section 5(a)(1) of the OSH Act requires employers to protect employees from serious and recognized hazards. Recognition of the hazard of powered industrial truck tipover and the need for the use of an operator restraint system is evidenced by certain requirements in the more current versions of ANSI B56.1 consensus standard for powered industrial trucks; ASME/ANSI B56.1a-1989 Addenda to ASME/ANSI B56.1-1988, and ASME B56.1-1993 - Safety Standard for Low Lift and High Lift Trucks. In addition, seat belts have been supplied by many manufacturers of counterbalanced, center control, high lift trucks which have a sit-down nonelevating operator position. Also, some manufacturers have instituted retrofit programs for the installation of operator restraint systems to older powered industrial trucks.

OSHA's enforcement policy relative to the use of seat belts on powered industrial trucks is that employers are obligated to require operators of powered industrial trucks which are equipped with operator restraint devices or seat belts to use the devices. OSHA should enforce the use of such devices under Section 5(a)(1) of the OSH Act.

After consultation with the Regional Solicitor, OSHA may also cite Section 5(a)(1) of the OSH Act if an employer has not taken advantage of a manufacturer operator restraint system or seat belt retrofit program.

If you have any questions or concerns, please contact Wil Epps of my staff at (202) 219-8041.

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Enclosure (1)

**Use of seat belts on powered industrial trucks.**

- **Record Type:** Interpretation
- **Subject:** Use of seat belts on powered industrial trucks.
- **Information Date:** 03/07/1996

March 7, 1996

Mr. Robert B. Walker, CSP
Director - Health, Safety

and Industrial Hygiene
Bridgestone/Firestone, Inc.
P.O. Box 1408900
Nashville, TN 37214-8900

Dear Mr. Walker:

Thank you for your letter dated January 29, addressed to Mr. Thomas H. Seymour, Deputy Director for Safety Standards Programs, requesting clarification of the **Occupational** Safety and Health Administration (OSHA) policy regarding the use of **seat** belts on powered industrial trucks. Your letter was transferred to the Directorate of Compliance Programs for response. I apologize for the delay in responding to your request. The questions you asked and the corresponding **responses** follow.

Question 1: Are seat belts required to be installed on forklift trucks? If so, under what standard and section is this addressed?

Response: OSHA does not have a specific standard that requires the use or installation of seat **belts**, however, Section 5(a)(1) of the Occupational Safety and Health Act (OSH Act) requires employers to protect **employees from serious and** recognized hazards. Recognition of the hazard of powered industrial **truck tipover** and the need for the use of an operator restraint system is evidenced by certain requirements for powered industrial trucks at **ASME B56.1-1993 - Safety Standard for Low Lift and High Lift Trucks**. National consensus standard **ASME B56.1-1993** requires that **powered** industrial trucks manufactured after 1992 must have a restraint device, system, or enclosure that is intended to assist the **operator in** reducing the **risk** of entrapment of the **operator's** head and/or torso between the truck and ground in **the** event of a **tipover**. Therefore, **OSHA** would enforce this standard under Section 5(a)(1) of the **OSH Act**.

Question 2: Is it required for new forklift trucks to have **seat** belts. If so, under what standard and **section is** this addressed?

Response: See response to question #1.

Question 3: Is it required for forklift trucks already in use (**that** do not have seat **belts**) to be retrofitted for seat belts? If **so**, under **what standard** and section is this addressed?

Response: Please be advised that when an employer has been notified by a powered industrial truck **manufacturer or association** of



(3) minimum capacity of truck on which the platform can be used.

736.4 Trucks used for elevating personnel shall have:

(a) When controls are supplied for use on the elevating platform, they shall be readily accessible to the operator and protected from damage and inadvertent actuation. Provision to shut off power to the truck shall be provided. An emergency lowering means operable from the ground shall be provided for overriding the controls on the platform.

(b) Hydraulic or pneumatic hoisting systems shall include means to prevent unintended descent in excess of 120 ft/min (0.6 m/s) in event of a hose failure.

7.36 Radiator Caps

All pressurized, liquid-cooled, internal combustion engine-powered trucks shall have safety-type radiator caps such that a pressure relief step precedes the complete removal step.

7.37 Fork Extensions

7.37.1 Fork extensions should not be longer than 150% of the supporting fork's length (see Fig. 7).

7.37.2 Each fork extension shall be capable of supporting a uniformly distributed, or equivalent load of 3 times its rated capacity when mounted on a fork of the specified size.

No permanent deformation shall be produced by the application of this test load after having removed the effects of any local manufacturing irregularities by up to 3 preliminary applications of the test load.

7.37.3 For purpose of rating, the rated load center of the fork extension should be at 50% of the fork extension load supporting length.

7.37.4 Each fork extension shall be clearly stamped with its individual load rating and supporting fork size in an area readily visible and not subject to wear. For example, 1500 x 30 — 2 x 4 x 42 means a 1500 lb load at a 30 in. load center with a recommended supporting fork size 2 in. x 4 in. and not less than 42 in. long; or, for example, 2000 x 600 — 80 x 180 x 800 means a 2000 kg load at a 600 mm load center with a

recommended supporting fork size of 80 mm x 180 mm and not less than 800 mm long.

7.37.5 Fork extensions shall be designed to avoid unintentional disengagement from the forks. Lateral clearance shall not exceed 1/2 in. (13 mm) between fork and extension.

7.38 Battery Restraint for High Lift Rider Electric Trucks Up to and Including 12,000 lb Rated Capacity (Excluding High Lift Man-Up Trucks and High Lift Order Picker Trucks)

7.38.1 Means shall be provided, as part of the truck, to restrain the battery in a vertical and longitudinal direction so that if truck tipping should occur, the battery will not move more than 4 in. (100 mm) into the space normally occupied by the operator or move more than 4 in. (100 mm) in a lateral direction beyond the plan view outline of the truck.

7.38.2 The restraining means shall restrict the battery displacement within the required limits when up to a maximum 90 deg. overturn is simulated by allowing a static truck to fall free from its critical balance point impacting on a horizontal plane. The movement of the battery shall not interfere with the operator's egress from the truck.

7.39 Operator Restraint Systems

(93)

(a) Counterbalanced, center control, high lift trucks that have a sit-down, nonelevating operator position shall have a restraint device, system, or enclosure that is intended to assist the operator in reducing the risk of entrapment of the operator's head and/or torso between the truck and ground in the event of a tipover. Such means shall not unduly restrict the operation of the truck, e.g., the operator's mounting, dismounting, movement, and/or visibility.

(b) Warnings and instructions on the purpose and use of the operator protection provided shall be displayed in clear view on the truck and included in the operator's manual.

7.40 Sound

(93)

Sound testing, when conducted, shall be in accordance with the test procedures of ASME 856.113.

